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1938

NOTICE

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IMPORTANT

Prices of publications issued on or after 1 January, 1938 are post free.

IN THE PRESS:—

LA LÉGISLATION DU COMMERCE DES PLANTES

(PUBLISHED IN FRENCH ONLY)

This new edition (second) is considerably more complete than the preceding one. In fact, the volume in preparation includes 60 countries instead of 37, and it may be said that it is truly universal. The countries dealt with are the following in French alphabetical order: Germany, Argentina, Commonwealth of Australia, Belgium, Belgian Congo, Brazil, Bulgaria, Canada, Costa Rica, Denmark, Egypt, Estonia, United States of America, Puerto Rico, Finland, France, French Equatorial Africa, French West Africa, Algeria, Indo-China, Morocco, Tunis, United Kingdom, Scotland, Ceylon, Gold Coast, Jamaica, Kenya, British Malaya, Palestine, Southern Rhodesia, Tanganyika, Greece, Guatemala, Haiti, Hungary, India, Iran, Ireland, Italy, Eritrea, Somaliland (Italian), Japan, Lithuania, Luxemburg, Mexico, Norway, Netherlands, Netherlands East Indies, Nicaragua, Poland, Portugal, Romania, Sweden, Switzerland, Czechoslovakia, Turkey, U. S. S. R., Union of South Africa, Uruguay, Yugoslavia.

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ROME — PRINTING OFFICE ' DITTA CARLO COLOMBO '

NOTES ON THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Election of Chairman of the Permanent Committee of the International Institute of Agriculture. — The Permanent Committee, at its ordinary session of March, with Dr. J. J. L. van Rijn, delegate of the Netherlands and of the Netherlands Indies and Vice-President of the Institute, in the chair, proceeded to the election of its Chairman, in accordance with Art. 8 of the international convention of 7 June 1905.

Baron Giacomo Acerbo, delegate of Italy, the retiring Chairman of the Permanent Committee, was unanimously elected for a further period of three years.

Establishment of the International Forestry Centre in Berlin. — The Permanent Committee o fthe International Institute of Agriculture, in its session of March 1938, resolved to set up an International Forestry Centre in Berlin and, according to the terms of the constitution adopted at the same session, affiliated to the International Institute of Agriculture.

World wheat supplies and requirements (*Press communiqué of April 1938*). — The International Institute of Agriculture having revised, from the data and reports received since October, the statistical position of the present wheat season, publishes the following conclusions on supplies and world wheat requirements.

World exportable supplies are estimated at 736 million bushels, or 34 million less than the forecast made in October. They are very little larger than those of the last two seasons, which were among the lowest recorded for a long series of years. Their smallness is due partly to the bad crops of Canada and Argentina and partly to the low exportable stocks with which the season began. Only about an eighth of the total surplus, or 88 million bushels, consists of stocks carried over from previous seasons, the remainder, supplied by the 1937 crop, being 648 millions.

The probable requirements of importing countries stand, after revision, at 520 million bushels, or 15 millions less than the October forecast, due to a decrease in the probable demand of Europe, which is reduced from 420 million bushels to 405 millions, while the probable demand of extra-European countries is maintained at 115 million bushels. At this level, world import requirements are, with those of 1935-36, the smallest since the Great War. Against last year they show a decrease of 82 million bushels or 14 per cent.

The figures of the wheat trade in the first six months of the present season, August 1937 to January 1938, show that net wheat exports from all the exporting countries were 266 million bushels, whereas the corresponding figure for the last season was 323 millions. Imports of European countries in the same period were 192 millions against 180 last year but they are forecast for the second half

season at 213 millions, compared with 258 million in February-July 1937. On 1 February quantities afloat for Europe were larger than those at the beginning of the season (37 against 26 million bushels), but much lower than on 1 February 1937 (54 millions).

The predicted decline in international wheat requirements, which is confirmed by the trade movements of the first half of the season, is to be attributed in the case of European importing countries to the large resources at their disposal, which reinforce their general policy of import restrictions and in the case of extra-European countries to the discontinuance of imports into the United States, Morocco and Tunisia following the good crops of 1937, in addition to smaller purchases by other large consuming countries (Brazil, China, Japan, etc.).

From a comparison of total import requirements of countries with a net import and the exportable supplies of those with a net export it is apparent that the exportable surplus from the 1937 crop (648 million bushels) is amply sufficient, in spite of the failure of the Canadian and Argentine crops, to cover the forecast world demand (520 million bushels), so that, for the first time since 1930, part of the exportable surplus (128 millions) will be held in reserve and carried over to next season. Accordingly, exportable stocks, which after several years of steady decline, were reduced on 1 August 1937 to a minimum level (88 million bushels), should on 1 August 1938 be about 216 million bushels, a slightly lower figure than was forecast last October (235 millions) but still approximately equal to what was regarded as normal before the great wheat crisis.

BOOKS PRESENTED TO THE LIBRARY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Annuaire officiel des produits alimentaires et des industries qui s'y rattachent publié sous le patronage du Ministère des affaires économiques. Administration du commerce intérieur. 1937. 2ème édition. Bruxelles, Bureaux: Les Annuaires officiels belges, [1937]. 902 p. [Second title in English].

Annuario delle banche e dei banchieri d'Italia. Ediz. 1937-38. [Milano, Stampa periodica italiana, 1938]. 1123 p. (Biblioteca della Associazione tecnica bancaria italiana).

Annuario generale della Libia 1937-38. XV-XVI E. F. Tripoli, Unione Coloniale italiana pubblicità e informazioni, [1937]. 362 p.

Annuario italiano. Guida generale della agricoltura, industrie, commerci, arti e professioni d'Italia e Impero coloniale. Ediz. 1937-38. Milano, Società editrice dell'Annuario italiano, [1937]. 1383 p.

Annuario statistico dei prodotti chimici per l'agricoltura. Anni 1935-36. Roma, 1937. 211 p. (Federazione nazionale fascista degli industriali dei prodotti chimici. Roma).

Bakken, H. H. and M. A. Schaars. The economics of co-operative marketing. London, McGraw-Hill Publishing Co, 1937. viii, 583 p.

Bayerische Bauernsiedlung G. m. b. H. in München. Jahres-Bericht über das 18. [und] 19. Geschäftsjahr 1935, 1936. München, A. Huber, 1936, 1937. 2 vols.

The radio communiqués of the International Institute of Agriculture will be transmitted between 2.45 and 2.52 p. m. on the following days: Thursday, English *and* German; *Saturday*, Spanish; *Tuesday,* Italian *and* French.

They will be broadcast from Rome II (245.5 m.) and Rome 2 RO 4 (25.4 m.).

The hour of broadcasts is in Central European Time, which is one hour ahead of Greenwich Mean Time, and 5 hours ahead of Eastern Standard Time in the United States.

INTERNATIONAL BULLETIN OF PLANT PROTECTION

1938 No. 4

DISCOVERIES AND CURRENT EVENTS *

United States of America: Downy Mildew of Tobacco †

Tobacco downy mildew, *Peronospora tabacina* Adam, was more widespread and destructive in seed beds in the United States in 1937 than ever before. The open winter and cool spring apparently fostered its development. It was first reported from southern Georgia, January 25, but it was then evident that it had been active for two or three weeks. As the season advanced, it developed in relatively severe proportions in all the tobacco producing areas where it had previously been known to occur, and extended its range to new territory in Kentucky and Tennessee. In appeared for the first time in southern Indiana, Connecticut, and Massachusetts. Generally speaking, the amount of loss sustained from the disease in any given section correlated with the date of its first appearance in that section.

Eritrea: Locusts §

No locusts were reported in the Colony during the months of December, 1937 and January, 1938.

India: Some New Diseases Observed in the Punjab and Mycological Experiments in Progress during the Year 1937 ††

(1) *Phytophthora colocasiae*, Rac. was observed on *Colocasia* sp. in the Kangra Valley. In many places, the disease has done serious damage to the crop.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from the official correspondent of the Institute, Mr. H. A. EDSON, Principal Pathologist in Charge, Division of Mycology and Disease Survey, Bureau of Plant Industry, United States Department of Agriculture, Washington.

§ Communication from Dr. LUIGI M. BOLOGNA, Acting Chief of the Agricultural Bureau of Eritrea, Asmara, transmitted to the Institute by the Government of the Colony.

†† Communication from the official correspondent of the Institute, Mr. R. S. JAI CHAND LUTHRA, M. Sc., D. I. C. (Lond.), I. A. S., Professor of Botany, Punjab Agricultural College, Lyallpur, Punjab, India.

(2) *Phoma* sp. was found on the aerial parts of young seedlings of citrus plants. The affected plants ultimately die when the attack is severe.

(3) *Rhizoctonia* sp. on gram (*Cicer arietinum*).

Investigations in progress on other diseases are as follows:—

(1) Control of loose smut of wheat (*Ustilago tritici* [Pers.] Jens.): — The new method of controlling this disease by the application of solar heat discovered by Prof. J. C. Luthra was further tried on a large scale and found to be most effective in every case. Experiments carried out to study the effect of this method on the yield of wheat crop raised from treated seed have confirmed previous conclusions that neither viability of the seed is impaired nor outturn is reduced. Extended trials of this method are being carried on. Some trials have shown that this solar heat treatment can be successfully applied for control of smut in oats and barley. Experiments on these crops are also in progress.

(2) Flag smut of wheat (*Urocystis tritici*, Koern.): — Various methods for control of the disease are under trial, *i. e.* (i) cultural operations of soil infected with spores, (ii) tests of different varieties of wheat for relative resistance and (iii) seed disinfectants.

(3) Gram blight:— Life cycle of the causal fungus, *Phyllosticta rabiei* = *Ascochyta rabiei*, and trials of different types of gram for relative resistance to the disease. Three types of gram (*C. arietinum*) got from France have proved fully resistant to the disease and they are being further studied.

(4) Stem rot of rice (*Sclerotium oryzae*, Catt.).

(5) Citrus wilt (*Fusarium* sp.).

(6) Smut of sugarcane (*Ustilago scitaminea*, Syd.).

(7) *Cytospora sacchari*, Butl. on sugarcane.

(8) Wilt and tuber rot of potato.

Mozambique: Parasites of Cultivated Plants Observed in the Province of Sul do Save *

Citrus aurantium L.	*Penicillium italicum* Wehmer.
	P. digitatum Sacc.
	P. roseum Lk.
	Septobasidium pseudopedicillatum Burt.
	Capnodium citricolum McAlp.
	Phomopsis citri Faw.
	Alternaria citri Pierce.
	Colletotrichum gloeosporioides Penz.
	Phytophthora citrophthora (Sm. and Sm.) Leonian.
	Chlorosis (physiological cause).
	Exanthema (cause unknown).
	Cephaleuros mycoidea Karst.

* Communication from Mr. JÚLIO GARDÉ ALFARO CARDOSO, Laboratory of Mycology of the 'Repartição Técnica de Agricultura,' Lourenço Marques, Mozambique.

Citrus limonia Osbeck . . .	*Phytophthora citrophthora* (Sm. and Sm.) Leonian.
	Colletotrichum gloeosporioides Penz.
	Alternaria citri Faw.
	Penicillium digitatum Sacc.
	Capnodium citricolum McAlp.
	Sphaceloma fawcetti Jenkins.
	Gloeosporium limetticolum Clausen.
Citrus grandis Osbeck	*Colletotrichum gloeosporioides* Penz.
	Penicillium digitatum Sacc.
	Capnodium citricolum McAlp.
Citrus nobilis Lour.	*Phytophthora citrophthora* (Sm. and Sm.) Leonian.
	Colletotrichum gloeosporioides Penz.
	Capnodium citricolum McAlp.
Vitis vinifera L.	*Uncinula necator* (Schw.) Burr.
	Guignardia bidwellii (Ellis) Viala and Ravaz.
	Gloeosporium ampelophagum Sacc.
Cucurbita sp.	*Erysiphe cichoracearum* DC.
Rosa sp.	*Sphaerotheca pannosa* (Wallr.) Lév.
	Coniothyrium fuckelii Sacc.
	Phragmidium subcorticium Wint.
	Actinonema rosae Lib.
Dianthus caryophyllus L. . .	*Uromyces caryophyllinus* (Schrank) Wint.
Mangifera indica L.	*Colletotrichum gloeosporioides* Penz.
	Bacillus mangiferae Doidge.
Pirus malus L.	*Coniothecium chomatosporum* Corda.
Prunus persica Stokes	*Puccinia pruni-spinosae* Pers.
Ficus carica L.	*Kuehneola fici* Butl.
Solanum tuberosum L. . . .	*Alternaria solani* (E. and M.) Jones and Grout.
	Actinomyces scabies Güssow.
	Bacterium solanacearum E. F. Smith.
Solanum lycopersicum L. . .	*Macrosporium tomato* Cooke.
Phaseolus vulgaris L.	*Uromyces appendiculatus* (Pers.) Link.
	Colletotrichum lindemuthianum (Sacc. and Magn.) Br. and Cav.
	Bacterium phaseoli var. *sojense* Hedges.
	Fusarium sp.
Zea mays L.	*Puccinia maydis* Béreng.
	Ustilago maydis (DC.) Tul.
	Streak disease (cause unknown).
Triticum vulgare L.	*Puccinia graminis* Pers.
	P. triticina Erikss.
Hordeum sp.	*Ustilago* sp.
Oryza sativa L.	*Leptosphaeria salvinii* Catt.
	Piricularia oryzae Br. and Cav.
	Fusarium sp.

Gossypium sp.	*Glomerella gossypii* (South.) Edg.
	Fusarium vasinfectum Atk.
	Macrosporium sp.
	Alternaria sp.
Pelargonium sp.	*Puccinia malvacearum* Mont.
Vicia faba L.	*Uromyces fabae* (Pers.) De By.
Brassica sp.	*Bacterium campestre* (Pammel) E. F. Smith.

Southern Rhodesia: Locust Invasion, 1932-1937 *

Monthly Report No. 61. December, 1937.

Reports of winged swarms of the Red Locust (*Nomadacris septemfasciata*, Serv.) have been received from the following districts during December, namely:— Marandellas, Makoni, Mtoko, Hartley, Mrewa, Insiza, Belalima-Mangwe, Sebungwe, Chibi, Gwanda, Inyanga, Victoria, Darwin, Belingwe, Lomagundi, Gwelo, Ndanga and Mazoe.

These districts include the greater part of the Colony, apart from the extreme west.

No definite trend of movement has been apparent.

Storks and kites are stated to have been attending the swarms in certain instances.

Towards the end of the month, swarms in certain districts were developing breeding colouration and egg-laying was definitely reported in the districts of Lomagundi, Mazoe and Ndanga during the last week. The egg deposits to date are apparently localized and of limited extent, but it would appear that hoppers are likely to hatch out in the Colony in appreciably larger numbers than last year.

The Department is well provided with material for conducting a vigorous campaign if necessary.

VARIOUS QUESTIONS

Standard Method of Control of the Colorado Beetle (*Leptinotarsa decemlineata*).

The IIIrd Conference of the International Committee for the mutual study of the control of the Colorado beetle met at Zurich on 3, 4 and 5 March, 1938, with the participation of the official delegations of Germany, Belgium, France, Italy, Luxemburg, the Netherlands and Switzerland, as well as the technical representative of the International Institute of Agriculture.

* Communication from Mr. J. K. CHORLEY, Assistant Entomologist, for Chief Entomologist, Department of Agriculture, Salisbury, Southern Rhodesia.

A brief official statement on this Conference will be published as soon as communicated to the Institute. Meanwhile, it is considered opportune to reproduce herewith, in view of its topical interest, the text of the standard method of control of the Colorado beetle, adopted by the said Conference.

Under present conditions (Spring, 1938), the Committee recommends the following measures, when an outbreak of the Colorado beetle is threatened:—

(*A*) Patrolling.

In a region contaminated or suspected of infestation patrolling should be intensified from the time the soil temperature exceeds 10° C., the optimum temperature for the emerging of the adults being 14-15° C. Such patrolling should be extended to areas cultivated with potatoes, egg-plants, tomatoes and all cultivated or wild Solanaceae, particularly bittersweet. As soon as the fine days begin, patrolling should be made of all the fields in the locality, particularly where the foliage is most developed.

Patrolling becomes all the more necessary when the temperature rises to 20° C. or over during several days.

Patrolling is particularly indicated in the direction of the winds prevailing during the hottest hours of the day (10 a. m. to 3 p. m.).

(*B*) Discovery of the Insect.

(1) Immediate collection and destruction on the spot.

(2) Demarcation of the outbreak centre.

(3) Removal of the haulm which should be carefully collected in the centre of the outbreak area.

(4) Breaking up of the soil and careful search for insects by sieving the soil.

(5) Treatment of the soil by injection of carbon disulfide (100 grams per sq. metre).

(6) Distribution of the haulm in the outbreak area.

(7) Repeated treatment of the soil and the haulm with the same products.

Operations (3) to (7) may be substituted by the following:—

(3) Burial of the haulm on the spot at a minimum depth of 60 cm. and saturation with benzol or petroleum.

(4) Sieving of the soil as above.

(5) Treatment of the soil as above.

(8) Immediate treatment of the foliage with an insecticide indicated by the technical Service (such as diplumbic arsenate or calcium arsenate) on all potato fields within a radius of at least 500 metres.

Treatment to be repeated, when necessary, two to four weeks later. Eventually, a third treatment.

(9) Supervision and patrolling will be carefully continued after the treatment.

* * *

It is recommended to retain the green foliage as late as possible into the autumn and to replant potatoes as early as possible in the spring on the outbreak areas to serve as plant-traps.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Algeria. — Six Decrees, dated 1 September, 1937, regard respectively the export of consignments of Algerian oranges, tangerines, clementines, satsumas, kumquats, pomeloes and lemons.

The fruits for export marked 'Standard' should be, *inter alia*, exempt from sooty mould and scale insects.

The export of fruits evidently and seriously attacked by disease or fruit pests, and those affected by the fruit flies will be prohibited. (*Journal Officiel de l'Algérie*, Alger, 10 septembre 1937, 11e année, nº 37, p. 871-877).

Germany (Prussia). — By two Decrees of 23 November, 1937, the control of the woolly aphis (*Schizoneura lanigera* [*Eriosoma lanigerum*]), and also the winter moth [*Cheimatobia brumata*] and the mottled umber moth [*Hybernia defoliaria*] is rendered compulsory in the Breslau district, Silesia. Control should be carried out in conformity with the measures established by the Minister of Agriculture.

The bands for trapping these pests should be applied to all fruit trees previous to 15 March. The section of the trunk below the band should be treated with carbolineum. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Februar 1938, Bd. X, Nr. 1, S. 18-19).

*** By Police Ordinance of 11 January, 1938, the trade in poisons has been regulated.

The first two sections of this Ordinance (§§ 2-17) regard the keeping and sale of poisons.

§ 18 regards the poisons intended for the destruction of noxious animals. It is stated that on each package, a specification should be given warning the purchaser of the danger in not complying with the necessary precautions. Detailed prescriptions are given relative to the packing and sale of preparations containing arsenical substances, fluorides or fluosilicates, thallium and strychnine.

The Ordinance concludes with a list of all elements, compounds and preparations considered to be of a poisonous nature. (*Ibid.*, S. 8-17).

Germany (Schaumburg-Lippe). — By Decree of 10 December, 1937, the control of 'suckers' [*Psylla*], scale insects and other pests of fruit trees is rendered compulsory.

Those concerned are obliged to treat all fruit trees, during the course of winter, with carbolineum or tar emulsions in conformity with the regulations established by the Plant Protection Service. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Februar 1938, Bd. X, Nr. 1, S. 19-20).

Argentine Republic. — By Decree No. 108.718 of 21 June, 1937, the sum of 3 million ' pesos ' is placed at the disposal of the Administrative Department of the Department of Agriculture, to meet all expenses incurred in the control of the South American locust [*Schistocerca paranensis*] during the 1937-1938 campaign. (*Boletín Oficial de la República Argentina*, Buenos Aires, 13 de enero de 1938, año XLVI, núm. 13.048, pág. 435).

*** By Decree No. 118.453 of 9 November, 1937 the Ministry of Fnance will undertake to place at the disposal of the Ministry of Agriculture, the sum of 50,000 ' pesos,' as an advance amount to be credited to the ' Servicio Sanitario Algodonero', to meet the expenses incurred by this Service under the control of the ' Dirección de Sanidad Vegetal ' of the aforesaid Ministry. (*Ibid.*, 11 de diciembre de 1937, año XLV, núm. 13.023, pág. 15378).

*** Decree No. 118.964 of 15 November, 1937 modifies provisionally article 11 of the Decree No. 29.353 of 10 October, 1933 relative to the supply of barriers for use in the control of the South American locust [*Schistocerca paranensis*], and establishes the selling price of the said barriers. (*Ibid.*).

Brazil (Minas Geraes). — The Law No. 145 of 11 November, 1936 renders compulsory the destruction of the residues of the crops of annual varieties of cotton, as well as any other wild or cultivated plants which may facilitate the spread of pests common to cotton. (*Minas Geraes – Revista da Producção*, Bello Horizonte, junho, julho e agosto 1937, anno I, nos. 4, 5 e 6, pag. 110).

United States of America. — The revision of Notice of Quarantine No. 38, on account of the black stem rust of grains (*Puccinia graminis*), and of rules and regulations supplemental to said Notice, approved on 4 August, 1937 and effective on 1 September, 1937, adds the States of Missouri, Pennsylvania, Virginia, and West Virginia to the list of States previously designated as protected, *i. e.* the States of Colorado, Illinois, Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, and Wyoming.

Persons intending to move *Berberis* or *Mahonia* plants, except *B. thunbergii* and its rust-resistant varieties, into the protected States shall make application for a permit to the Bureau of Entomology and Plant Quarantine, Washington, D. C. (*B. E. P. Q. — Q. 38*, [Washington, D. C.], 1937, 4 pp.).

*** The revision of Notice of Quarantine No. 64, on account of *Anastrepha ludens* Loew, and of rules and regulations supplemental to said Notice, approved on 14 October, 1937 and effective on 15 October, 1937, adds a portion of Jim Wells County in Texas to the regulated area; fixes a period from 1 May to 31 August, inclusive, of each year during which no host fruit are produced or permitted

to exist within the regulated area, except immature fruit in such stage of development, and mature fruit held or stored under such conditions as are prescribed by the Chief of the Bureau of Entomology and Plant Quarantine, which in his judgement do not convey risk of propagating the insect; designates the same formerly known as Mexican fruitworm under the more appropriate title of Mexican fruitfly; adds fruits of species of *Sargentia* to the list of hosts; modifies former specific restrictions as to containers; and provides that the Chief of said Bureau may specify the conditions and period for the maintenance of sanitary requirements in groves, and may modify, by administrative instructions, any of the restrictions contained in the regulations, other than those pertaining to extension or reductiou of the regulated area, when in his judgement such action is necessary to prevent the spread of the Mexican fruitfly. (*B. E. P. Q. – Q. 64*, [Washington, D. C.], 1937, 5 pp.).

*** Amendment No. 3 to revised rules and regulations supplemental to Notice of Quarantine No. 52, on account of the pink bollworm of cotton [*Pectinophora gossypiella*], approved on 27 October, 1937 and effective on 28 October, 1937, adds the counties of Socorro and Valencia in New Mexico to the lightly infested areas. There are no ginning facilities in these counties and the small amount of cotton grown therein is carried into the adjacent regulated area for ginning. The inclusion of these counties in the regulated area allows such seed to be returned after ginning to farms and ranches in Socorro and Valencia Counties for planting and feeding purposes. (*B. E. P. Q. — Q. 52*, [Washington, D. C.], 1937, 2 pp.).

*** Amendment No. 3 to rules and regulations supplemental to Notice of Quarantine No. 71, on account of the Dutch elm disease [*Ceratostomella ulmi*], approved on 9 November, 1937, adds to the regulated area the towns of Redding and Weston in Fairfield County, Conn.; the township of Alexandria in Hunterdon County, N. J.; and the town of Cornwall in Orange County, N. Y. This action was taken on the basis of intensive inspection made throughout the year which disclosed infections in areas contiguous to the present regulated area.

This amendment shall be effective on and after 9 November, 1937, and shall on that date supersede amendment No. 2 [see this *Bulletin*, 1937, No. 5, p. 91]. (*B. E. P. Q. — Q. 71*, [Washington, D. C.], 1937, 2 pp.).

France. — A Decree of 9 November, 1937 regulates the application of the Law of 12 July, 1916 relative to the trade in poisonous substances. (*Bulletin de l'Office des Renseignements agricoles*, Paris, 1er décembre 1937, année 1937, nº 23, p. 495-497).

Italy. — A Ministerial Decree of 12 November, 1937, authorizes up to 6 January, 1938, the shooting and capture of sparrows [*Passer domesticus*] in the Muratella-Maccarese zone, of the province of Rome, with the object of protecting the agricultural crops of the said zone. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 24 novembre 1937, anno 78º, n. 272, pp. 4217-4218).

*** In three Ministerial Decrees of 21 November, 1937, special technical regulations are given relative to the export of cauliflowers, citrus fruits and tomatoes respectively.

It is stipulated, *inter alia*, that the export of these vegetables and fruits if attacked by diseases or pests is prohibited. (*Ibid.*, 17 dicembre 1937, n. 291, pp. 4570-4582, 20 figg.).

*** The Royal Decree No. 2504 of 2 December, 1937, modifies the regulation, approved by the Royal Decree No. 1700 of 12 October, 1933 [see this *Bulletin*, 1934, No. 1, pp. 14-15], for the application of the Law No. 987 of 18 June, 1931 [see this *Bulletin*, 1931, No. 9, p. 166] containing measures for the protection of cultivated plants and agricultural products, as well as for the organization of the relative Services.

The present Decree modifies, substitutes or abrogates some of the articles relative to the circulation of plants or parts of plants of the grape-vine, the execution of compulsory treatments, the organization and operation of voluntary and compulsory syndicates for the control of plant diseases, syndicates for the improvement and development of crops, and also the federations of these syndicates. (*Ibid.*, 18 febbraio 1938, anno 79°, n. 40, pp. 635-638).

*** By Decree of the Minister of Finance, dated 22 December, 1937, the application of the exchange duty, at the reduced rate of 0.75 lire per cent. is extended, from 1 January, 1938, to the parasiticides known in trade as 'Cuprital,' 'Calcital,' 'Solfital,' and 'Politional.' (*Ibid.*, 26 gennaio 1938, n. 20, p. 326).

*** By Law No. 2377 of 23 December, 1937 has been changed into Law the Royal Decree Law No. 642 of 15 April, 1937 [see this *Bulletin*, 1937, No. 7, p. 156], authorizing the Ministry of Agriculture and Forests to contribute to the expenses incurred in the control of citrus scale insects during the 1936-1937 season. (*Ibid.*, 3 febbraio 1938, n. 27, p. 442).

*** By Law No. 2640 of 23 December, 1937, has been changed to Law the Royal Decree Law No. 1568 of 8 July [see this *Bulletin*, 1937, No. 11, p. 252] regulating the preparation of and trade in sugar-beet seed also from the sanitary aspect. (*Ibid.*, 11 marzo 1938, n. 58, p. 981).

*** By Decree of the Minister of Finance, dated 29 December, 1937, the application of the exchange duty, at the reduced rate of 0.75 lire per cent., is extended, from 1 January, 1938, to the parasiticides known in trade as 'polvere del diavolo' and 'Aficida M.'. (*Ibid.*, 22 gennaio 1938, n. 17, p. 287).

Kenya (Colony and Protectorate of). — The Ordinance No. XXIV of 1937, dated 28 August, 1937 and which may be cited as the Plant Protection Ordinance, 1937, gives to the Governor in Council power to make rules for

the purpose of preventing and controlling attacks by or the spread of pests and diseases in the Colony; establishes the duty of occupiers of land, the right of entry and destruction of infectious articles; gives to the Governor power to order compensation to be paid out of the public funds to any person whose plants or other articles are destroyed; establishes the penalty for wilful introduction of pest or disease; gives to the Governor power to control the importation or exportation of articles likely to spread pests or diseases; establishes the penalty for breach of rules and orders of an inspector and the protection to inspectors acting under this Ordinance.

The Diseases of Plants Prevention Ordinance (Chapter 155 of the Revised Edition) is repealed. (Colony and Protectorate of Kenya. *Supplement to the Official Gazette. Ordinances (No. 4). Supplement No. 37*, Nairobi, September 14, 1937, Vol. XXXIX, No. 43, pp. 155-160).

*** By Government Notice No. 687 of 2 September, 1937 the following diseases and pests are declared to be diseases and pests for the purposes of the Plant Protection Ordinance, 1937:—

Diseases. — The disease commonly known as Elgon dieback, *Colletotrichum coffeanum, Hemileia vastatrix, Nematospora coryli, Bacterium tumefaciens, Corticium salmonicolor,* sugar-cane mosaic (virus), *Bact. rubrilineans,* sugar-cane streak disease (virus), *Sorosporium reilianum, Bact. malvacearum,* mosaic disease of lily, *N. gossypii, Spongospora subterranea,* mosaic, crinkle, streak diseases (virus) of potatoes, *Bact. translucens* var. *undulosum,* rosette disease (virus) of groundnuts.

Insect Pests. — *Locusta migratoria migratorioides, Nomadacris septemfasciata, Schistocerca gregaria, Diarthrothrips coffeae, Antestia lineaticollis, A. faceta, Aspidiotus (Chrysomphalus) aurantii, Asterolecanium coffeae, Dysdercus* spp., *Eriosoma lanigerum, Lygus coffeae* and other species of *Capsidae, Orthezia insignis, Pseudococcus kenyae, Ps. virgatus* and other mealybugs, *Busseola fusca, Epicampoptera andersoni, Laphygma exigua, L. exempta, Leucoptera coffeella, Parasa virida, Phytometra orichalcea, Platyedra gossypiella, Sesamia calamistis, Anthores leuconotus, Apate monacha, Bixadus sierricola, Cacoecia occidentalis, Dirphya princeps. Phloeobius pustulosus, Sophronica ventralis, Stephanoderes hampei, Oryctes monoceros, Ceratitis capitata, Dacus* spp., *Pheidole punctulata, Acantholepis capensis* and other species of ants attending mealybugs.

Plant Pests. — *Striga hermonthica, Tagetes minuta, Opuntia inermis, O. stricta, Alectra vogelii.* (*Supplement to the Official Gazette, Proclamations, Rules and Regulations (No. 32). Supplement No. 35,* September 7, 1937, No. 42, pp. 367-368).

*** By Government Notice No. 688 of 2 September, 1937, no plant or part of plant shall be imported into the Colony except under the autority of a permit previously obtained from, and signed by, the Director of Agriculture or an officer of the Department of Agriculture authorized by the Director of Agriculture, and subject to the conditions stated in such permit. This restriction shall not apply to seeds except those of the following plants:— coffee (except roasted coffee beans), cotton, tobacco, tea, cacao, coconuts, groundnuts, lucerne, clover, rubber, maize, wheat, cloves, and peach.

No plant shall be imported into the Colony except through one of the following ports or places of entry:— Mombasa, Kisumu, and Nairobi.

All plants, seed and fruit, other than dried canned or bottled fruits, any peckage or parcel containing any plant or seed imported into the Colony by post or otherwise than by post shall be examined by an inspector.

The Director of Agriculture may require imported plants to be detained in quarantine or in special nurseries or places approved by him, for such period as he may think fit.

The importation of all species of fruit trees and fruit grown in or consigned from Japan, China, Korea or Manchuria is prohibited.

No plant or part of any plant of Gramineae (except seeds) intended for use as fodder shall be imported into the Colony.

No living insects or invertebrate animals in any stage may be imported except by virtue of a permit previously obtained from and signed by the Director of Agriculture and under the conditions stated in such permit. (*Ibid.*, pp. 369-371).

Nicaragua. — By Decree of 7 November, 1937, all proprietors of banana plantations situated on the Atlantic coast of Nicaragua, irrespective of their extent, as well as persons cultivating or growing bananas in any way whatsoever, are obliged to immediately control and destroy by appropriate practical and scientific means, in their plantations, the 'Sigatoka' disease [*Cercospora musae*]. (*La Gaceta*, Managua, D. N., 11 de noviembre de 1937, año XLI, núm. 246, pág. 2386).

New Zealand. — By Resolution passed by the Stratford County Council on 20 August, 1937 and published by the Minister of Agriculture on 3 September, 1937, the said Council assume responsability for the administration of the Noxious Weeds Act, 1928, as from the 1 September, 1937. (*The New Zealand Gazette*, Wellington, September 9, 1937, Numb. 63, p. 2155).

*** By Special Order made by the Waikohu County Council on 31 August, 1937 and published by the Minister of Agriculture on 13 September, 1937, barberry (*Berberis vulgaris*) has been declared to be a noxious weed within the County of Waikohu. (*Ibid.*, September 16, 1937, Numb. 64, p. 2191).

*** By Special Order made by the Cook County Council on 18 August, 1937 and published by the Minister of Agriculture on 23 September, 1937, barberry (*B. vulgaris*) and St. John's Wort (*Hypericum perforatum* or *H. humifusum*) have been declared to be noxious weeds within the said County. (*Ibid.*, September 30, 1937, Numb. 66, p. 2244).

Portugal. — By Decree-Law No. 28 : 153 of 12 November, 1937 a national Committee for oils, dependent on the Ministry of Agriculture, has been established at Lisbon, under the name of 'Junta Nacional do Azeite' (J. N. A.).

The objects of this Committee also include cooperation with other official organizations for the control of the diseases and pests of the olive tree and the olive. (*Diário do Govêrno*, Lisboa, 12 de novembro de 1937, I série, núm. 264, págs. 1180-1183).

Northern Rhodesia. — By Government Notice No. 120 of 1937, dated 14 September, 1937, the importation of citrus fruit is permitted from the districts of Beira, Neves Ferreira, Cheringoma or Buzi in the Territory under the administration of the Companhia de Moçambique if each consignment be accompanied by a certificate issued by the Department of Agriculture, Beira, in the Form F of Schedule accompanying this Government Notice.

The importation of citrus trees from the Territory under the administration of the Companhia de Moçambique is prohibited. (*Supplement to the Northern Rhodesia Government Gazette, dated the 24th September, 1937*, pp. 327-328).

*** By Government Notice No. 121 of same date the Citrus Importation (Moçambique) Prohibition Regulations are revoked. (*Ibid.*, p. 328).

*** By Government Notice No. 164 of 1937, dated 19 November, 1937 the importation of citrus fruit is permitted from the territory under the administration of the Companhia de Moçambique except from the districts of Beira, Neves Ferreira, Cheringoma or Buzi if each consignment be accompanied by a certificate issued by the Director of Agriculture, Beira, in the aforesaid Form F which is accordingly amended. (*Supplement to the Northern Rhodesia Government Gazette, dated the 10th December, 1937*, p. 419).

Southern Rhodesia. — By Government Notice No. 507 of 23 July, 1937 tobacco growers are warned concerning the necessity of having all tobacco plants on their land effectively uprooted and destroyed on 1 August in the case of Virginia tobacco and 1 September in the case of Turkish tobacco.

Further, it is strongly recommanded that growers, owners of grading establishments, etc., dispose of all their tobacco and destroy all tobacco refuse and dust, and thoroughly clear their premises by the end of August. (*Government Gazette*, Salisbury, July 23, 1937, Vol. XV, No. 29, p. 509).

*** Government Notice No. 603 of 3 September, 1937 prohibits the introduction into the Colony of Southern Rhodesia from the districts of Beira, Neves Ferreira, Cheringoma and Buzi, in the territory administrered by the Mozambique Company, of any rooted plants or plants with soil adherent. (*Ibid.*, September 3, 1937, No. 35, p. 598).

Rumania * — By Decree No. 258840 of 12 November, 1937, the import of plants and parts of plants (bulbs, tubers, rhizomes, roots, etc.) from the Netherlands will only be authorized under the following conditions:—

(1) All the above-mentioned products should be accompanied by a phytopathological certificate issued by an organization recognized by the Rumanian Government.

* Communication from the official correspondent of the Institute, Professor G. ARION, Director of the Plant Protection Service, Ministry of Agriculture and Domains, Bucarest, Rumania.

(2) The phytopathological certificate accompanying the consignments should state that:—

(*a*) the products in question do not contain any eggs, larvae or adults of the Colorado beetle (*Leptinotarsa decemlineata*).

(*b*) the packing and plants do not carry any particles of soil.

(*c*) the locality from where the products were obtained is situated over 50 km. away from the region in which the Colorado beetle has been reported.

These measures, if necessary, may be extended to complete prohibition of the import of the aforesaid products.

Tunis. — By Decree of the Director of Economic Affairs, dated 30 November, 1937, article 1 of the Decree of 15 September, 1937 [see this *Bulletin*, 1938, No. 2, p. 34] is modified as follows:—

In place of:

(3) The cuttings and plants with roots should be packed in cases; cuttings from Algiers may be consigned in sacks or packing cloth.

Read:

(3) The shoots, cuttings and plants with roots of the grape vine should be packed in cases, sacks or packing cloth. (*Journal Officiel Tunisien*, Tunis, 24 décembre 1937, 55e année, nº 103, p. 1582).

Venezuela. — The presence of the cacao witches' broom disease [*Marasmius perniciosus*] having been ascertained in the Sucre State and the Federal Territory of Delta Amacuro [see this *Bulletin*, 1937, No. 11, pp. 253-254], as well as in the Monagas State, by Resolution No. 20 of 6 November, 1937 it is prohibited to transport from the aforesaid States and Federal Territory to other parts of Venezuela, any plant or part of plant, seeds, pods and beans of cacao, earth and used sacks coming from the said regions, as well as any other packing material utilized for cacao.

Boats having transported cacao originating in the zones declared to be infected, must, before passing to other regions of the country, be thoroughly disinfected, under the supervision of an officer nominated for this purpose by the Ministry of Agriculture and Animal Husbandry, and in so far as is considered necessary by this officer. (*Gaceta Oficial de los Estados Unidos de Venezuela*, Caracas, 6 de noviembre de 1937, año LXVI, núm. 19.410, pág. 115.203).

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As is known, in the interim and more precisely in 1930, the third edition was translated into Spanish by M. Benlloch and J. del Cañizo.

Although the original scheme of this work remains unchanged, Professor Ferraris has revised the entire text of the first volume and has also added many new illustrations, mostly original.

The inclusion, in the different chapters of the special part of the volume, of numerous diseases not mentioned in the previous edition, many of which were only recently discovered and studied, supplies the reader with the latest scientific and practical information and data regarding phytopathological questions.

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